

On the Impossibility of Information Intermediaries

Mark R. Patterson*

The information seeker, i.e., the principal, can never be certain, whether the information received from the agent, e.g., a supplier or a third party information provider, is complete or whether it is true or not.”¹

INTRODUCTION

According to some, “information intermediaries” are the solution to the costs imposed by the ease of communication on the World Wide Web.² These costs can be divided into three basic kinds. First, there are search costs: because web pages are easy and inexpensive to create, there are more than a billion of them,³ and finding a particular item of information can be difficult. Second, there are filtering costs: when we would prefer not to see, or to have others see, some information, we must incur costs to identify and screen out that information. Third, there are privacy costs: because web sites often seek to gather personal information about users, users must determine the purposes for which such information will be used and to what extent they are willing to release it.⁴

Intermediaries are agents that facilitate relationships between buyers and sellers, and information intermediaries serve this role for information markets. As one observer says, “[i]nformation

* Associate Professor of Law, Fordham University School of Law. I thank Peter Siegelman and Steve Thel for helpful comments. The title recalls Sanford J. Grossman & Joseph E. Stiglitz, “On the Impossibility of Informationally Efficient Markets, 70 AM. ECON. REV. 393 (1980). See *infra* note 22.

¹ FRANK ROSE, THE ECONOMICS, CONCEPT, AND DESIGN OF INFORMATION INTERMEDIARIES: A THEORETIC APPROACH 30 (1999). The sentence continues with a qualification: “unless a thorough investigation of the product, service, or information is undertaken.” But after such an investigation, the information is no longer needed. *Id.* at 19.

² Perhaps the most prominent advocates of this view have been John Hagel III and Marc Singer, who coined the word “infomediary”: “The infomediary will play a matchmaking role thanks to the sophisticated understanding of the consumer’s needs and preferences that it has gained from its customer information profile.” JOHN HAGEL III AND MARC SINGER, NET WORTH: SHAPING MARKETS WHEN CUSTOMERS MAKE THE RULES (1999). Another pair of business-school authors agrees, but calls information intermediaries “navigators”: “Navigators may be software programs (such as Quicken), databases (Auto Trader), evaluators (*Consumer Reports*, J.D. Power), or search engines (Yahoo!). . . . Navigators lower the cost of search, increase its comprehensiveness, and align the search process more closely with the interests of the buyers.” PHILIP EVANS & THOMAS S. WURSTER, BLOWN TO BITS: HOW THE NEW ECONOMICS OF INFORMATION TRANSFORMS STRATEGY 64-65, 151 (2000). See also Mark S. Nadel, *The Consumer Product Selection Process in an Internet Age: Obstacles to Maximum Effectiveness and Policy Options*, 14 HARV. J. L. & TECH. 181 (2000); Eugene Volokh, *Cheap Speech and What It Will Do*, 104 YALE L.J. 1805 (1995).

³ As of July 13, 2001, the search engine Google had indexed 1,346,966,000 web pages. See Google, <<http://www.google.com/index.html>> (visited July 13, 2001).

⁴ These different costs present distinct competitive problems. See *infra* text accompanying notes 76-80.

intermediaries are economic agents supporting the production, exchange, and utilization of information in order to increase the value of the information for its end-user or to reduce the costs of information acquisition.”⁵ Information intermediaries are said to reduce each of the costs discussed above, by helping Web users locate information (through portals, like Yahoo, and search engines, like AltaVista), by helping them filter information (through organizations like NetNanny), and by restricting how Web sites gather and use information (through privacy-certifying organizations, like TRUSTe).⁶

Information intermediaries have long been present in the traditional economy. Libraries, magazines like *Consumer Reports*, and certification organizations like Underwriters Laboratories are all information intermediaries. But Internet information intermediaries differ from these traditional entities in several ways. Most importantly, they are more often for-profit entities. Indeed, their for-profit status is often held out as the factor that ensures that they will serve consumers of information.⁷ In fact, though, the push for profits, together with the economics of providing information on the Internet, places different pressures on the new intermediaries.

My purpose in this essay is to question whether information intermediaries are likely to provide consumers with useful and objective information.⁸ My focus will be primarily on the new Internet intermediaries, because they are more often subject to the market-related problems that I will discuss. It may be, however, that the rise of the Internet will put financial pressure on traditional intermediaries

⁵ Rose, *supra* note 1, at 76 (emphasis omitted).

⁶ The rise of such intermediaries has been predicted to be one of the characteristics that will define the Internet in the future:

The real opportunity is for the information intermediaries. With so much information available there will be a compelling need for people to provide all kinds of directory, referral, annotation and indexing-type services, and they will be able to charge for those things maybe a penny or a nickel or what-have-you. And with the number of people in the billions on the Net - right? - if you get one in ten thousand people to use your service, you will be very well off indeed.

Jay M. Tenenbaum, CEO of Enterprise Integration Technologies, The Internet In 2010: An Industry Leader Panel Forecast, <<http://domino.ngi.ibm.com/patrick/other/iw2010.htm>>.

⁷ See, e.g., *Developments in the Law: The Law of Cyberspace*, 112 HARV. L. REV. 1574, 1647 (1999) (“Moreover, the multitude of potential substitutes for any particular type of Internet content, coupled with the intense competition among content providers for Internet traffic, ensures a high level of site responsiveness to user preferences.”). Other commentators claim not just that the market will ultimately cause information providers to serve consumers, but that the market for information on the Internet is now serving consumers well. See Progress and Freedom Foundation, Privacy and the Commercial Use of Personal Information,” <<http://www.pff.org>> (privacy).

⁸ On the difficulty of determining whether information is useful and objective, see note 54 *infra*.

as well, and will cause them to adopt some of the same policies.⁹ That question is beyond the scope of this essay, but it makes the concerns discussed here even more troubling.

The first section below discusses briefly the economics of markets for information generally, and the reasons why such markets on the Internet are not likely to be competitive. The second section discusses some additional problems that are created because the particular information that information intermediaries sell is information about other information. The third section describes how the response of information intermediaries to these competitive problems is likely to make them less, rather than more, useful to consumers. The final section discusses whether bodies of law intended to address market failures, such as antitrust law, could serve to remedy some of the problems of information intermediaries.

I. THE COST STRUCTURE OF INFORMATION INTERMEDIARIES

That advocates routinely claim that competition will produce useful information intermediaries illustrates the power of free-market rhetoric.¹⁰ In fact, markets in which information intermediaries operate are unlikely even to approximate the competitive ideal. The conditions required for a competitive market generally are said to include a large number of sellers, identical cost structures for all sellers, a homogeneous product sold by all sellers, perfect information on the part of buyers and sellers, and free entry into the market.¹¹ In the market for information intermediaries, these conditions are not likely to be met.

The fundamental problem is that the marginal cost of communicating information, particularly over the Internet, is extremely low, and fixed costs are relatively high.¹² Therefore, producers of information tend to have cost structures characterized by economies of scale. In addition, network effects may lead to demand-side economies of scale.¹³ Indeed, because these economies of scale can be unlimited, a market for information may support only one provider of efficient scale, in which case

⁹ Traditional, not-for-profit intermediaries might well be able to resist these pressures, in part because those who operate them might have professional or ethical obligations that ensure that they provide objective information. One would not expect public libraries, for example, to skew information to favor particular commercial interests. For such intermediaries, the question is not so much whether they will become less objective as whether they will be able to survive at all if their services are provided more “efficiently” by for-profit entities. It is quite possible, though, that libraries will respond creatively to the challenge: libraries in the Cleveland area, for example, have established an online question line, staffed by librarians, that is quite popular. *See* <<http://www.knowitnow24x7.net>>.

¹⁰ *See supra* note 7.

¹¹ F.M. SCHERER & DAVID ROSS, *INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE* 15-18 (3d ed. 1990); Thomas C. Arthur, *The Costly Quest for Perfect Competition: Kodak and Nonstructural Market Power*, 69 N.Y.U. L. REV. 1 (1994). Additional conditions, often neglected, will be discussed in subsequent sections. *See infra* text accompanying notes 32 & 49.

¹² *See, e.g.*, CARL SHAPIRO & HAL R. VARIAN, *INFORMATION RULES: A STRATEGIC GUIDE TO THE NETWORK ECONOMY* 20-22 (1999).

¹³ *See, e.g.*, Michael R. Baye & John Morgan, *Information Gatekeepers on the Internet and the Competitiveness of Homogeneous Product Markets*, 91 AM. ECON. REV. 454, 469 (2001).

that provider will have monopoly power.¹⁴ Such power would present a competitive problem even if it were used only to charge supracompetitive prices; in fact, as will be discussed below, it is likely to be used more insidiously.

It is important to note that economies of scale are present not only for intermediaries like Web directories that provide the same information to all users, but also for those, like search engines or shopping bots,¹⁵ that provide information in response to individual user requests. First, many of the results of the latter intermediaries are not actually individually tailored; that is why, for example, search engines can induce sellers to pay them for placement in the results of searches that are made often. Second, even to the extent that a user request is unique (as, for example, if a user asked a shopbot to find the lowest price on an obscure book), the marginal cost of fulfilling that request is low compared to the fixed cost of developing the software to fulfil it.¹⁶

One might wonder why this has not been a problem with information intermediaries in the traditional economy.¹⁷ One answer is that the marginal cost of distributing information in the traditional economy is not so low.¹⁸ Still, in most instances in the traditional economy in which the primary goal is to produce information for consumers,¹⁹ there is only one information intermediary. This is generally the case, for example, for certification organizations like Underwriters Laboratories, which are one of the purest forms of information intermediary. It is also the case for *Consumer Reports*, which is a relatively

¹⁴The rapid evolution of Web-based markets might suggest that it would be hard to maintain power in those markets, but in some other fast-evolving markets, power has been persistent. See David A. Balto, Emerging Antitrust Issues in Electronic Commerce, Nov. 12, 1999 <<http://www.ftc.gov/speeches/other/ecommerce.htm>> (citing Intel, Microsoft, and ATMs).

¹⁵ Shopping bots are services that search the Web for products with particular characteristics. For example, such a bot, given the name of a particular book, might search the Web to find it at the cheapest price.

¹⁶The question of whether these economies of scale can be exploited in the same way as those in the production of information itself is addressed below. See *infra* text accompanying notes 62-63.

¹⁷Some forms of information are only practically provided on the Web or on a similar computer network. Real-time stock quotes, for instance, and other information that depends for its value on timeliness, such as eBay's auction information, would be difficult to communicate in any other way.

¹⁸Note, however, that it has been suggested that the Internet, and improved information technologies more generally, are likely to lead to increased market concentration, because lower information and communication costs will make it easier to coordinate large operations. Philip E. Agre, *The Market and the Net: Personal Boundaries and the Future of Market Institutions*, <<http://dliis.gseis.ucla.edu/people/pagre/boundaries.html>>.

¹⁹Only where the primary goal of "information intermediaries" is to provide advertising, or an advertising-like product, is there competition among them. Thus, competitors have developed for providers of Yellow Pages books and classified advertising, but those markets primarily involve providing advertising to serve some other market. That is also the case for many magazines that are ostensibly providers of information, such as *Consumer Digest*, magazines that review automobiles and stereo equipment, and, most obviously, fashion and style magazines. See Alex Kuczynski, *A Little Light Reading, Anyone?: When Weighty Issues Are the Magazines Themselves*, N.Y. Times, Apr. 11, 2000, at C1 ("The March issue of Vogue had 177 pages of editorial [content] and 389 pages of advertising [content], or about 31 percent to 69 percent."). Consequently, there is no reason for them to operate competitively, as will be discussed below.

pure information intermediary.²⁰ It has even become true for many newspapers in recent years, as the number of newspaper mergers has increased.

The cost structures of information markets also affect the behavior of participants in those markets. The potential benefits of being a monopolist with low marginal costs are not lost on sellers. It is no accident that many instances of monopolization or attempted monopolization have involved information markets or other markets with economies of scale.²¹ In such markets, the benefits of acting predatorily, sacrificing short-term profits for a chance at the long-term profits that can come from monopoly, can be especially effective. New entrants operating at a smaller scale must incur losses much greater than those of larger-scale sellers. Thus, it is not only that cost structures provide a natural tendency toward a monopoly structure in these markets; the market behavior of incumbents provides an additional push in that direction.

So the characteristics of information make it likely that three of the conditions of a competitive market — identical costs, many sellers, and easy entry — will not be met. The characteristics of information as a product do not necessarily eliminate the fourth condition — information about the product. If an information product is generally useful, rather than useful only to one or a few users, it is plausible to think that users will have sufficient information to judge how well the product will meet their needs. For example, it is unlikely that a seller could profitably sell inaccurate maps, partly because users might to some extent be able to judge the maps' accuracy by themselves and partly because information about the inaccuracy of the maps would likely spread rapidly. As discussed in the next section, though, it may also be the case that information about the products of information intermediaries is not available.

II. THE UNAVAILABILITY OF INFORMATION ABOUT INFORMATION INTERMEDIARIES

Information intermediaries do not just provide information; they provide information about other information. As a result, the markets for information intermediaries (or for the information provided by information intermediaries) are likely to fall short of satisfying the condition of perfect information. Although no markets have perfect information,²² markets in which goods are easily evaluated can have sufficient information to allow them to function efficiently. Where a buyer is seeking information about

²⁰ There are other consumer magazines, like *Consumer Digest*, but those magazines, unlike *Consumer Reports*, accept advertising and thus are imperfect substitutes, for exactly the reasons discussed in this essay.

²¹ For cases in traditional markets, see *Lorain Journal Co. v. United States*, 342 U.S. 143 (1951); *The Apartment Source of Pennsylvania, L.P. v. Philadelphia Newspapers, Inc.*, 1999-1 Trade Cases (CCH) ¶72,541 (E.D. Pa.); *Zschaler v. Claneil Enterprises, Inc.*, 958 F. Supp. 929 (D. Vt. 1997). For cases in Internet markets, see *Hartford House, Ltd. v. Microsoft Corp.*, No. CV778550 (Cal. Super. Ct. filed Dec. 8, 1998); *Cyber Promotions, Inc. v. America Online, Inc.*, 948 F. Supp. 456 (E.D. Pa. 1996); *eBay, Inc. v. Bidder's Edge, Inc.*, 2000 U.S. Dist. LEXIS 13326 (N.D. Cal. 2000).

²² Sanford J. Grossman & Joseph E. Stiglitz, *On the Impossibility of Informationally Efficient Markets*, 70 AM. ECON. REV. 393 (1980).

some other product, however, the buyer will, almost by definition, be unable to evaluate the information received.²³

Consider search engines or price-comparison sites, for example. When a user seeks a web site with information about, say, eyeglass prices, the user might want to find a seller that offers low prices. The user probably does not, however, have a good sense of low and high price levels.²⁴ Therefore, the user will find it difficult to judge whether a search engine has provided a link to a site that meets his or her needs. It might be the case instead that the search engine's selection criteria have been exploited by high-eyeglass-price sites, or even that the search engine has sold such sites prominent placements in its search results. Exactly this sort of distortion was found in a recent survey of sites purporting to offer low-cost life insurance.²⁵

In theory, even if some buyers are not able to evaluate the information they receive, the information provider's need to serve other buyers, better informed, may cause it to provide high-quality information.²⁶ This possibility is not as likely to constrain intermediaries like search engines, though, because many of their users are uninformed; informed users are less likely to need a search engine. Other information providers could also, again theoretically, provide information about low-quality information, but if the principal sources of profits for search engines are advertising and payments for placement, other search engines are not likely to have the incentive to provide such information.²⁷

²³ That is, information is generally a credence good, a good whose value the consumer will have difficulty evaluating even after consuming it. See Michael R. Darby & Edi Karni, *Free Competition and the Optimal Amount of Fraud*, 16 J. L. & ECON. 67 (1973). Credence goods can be contrasted with search goods, goods whose values are known when they are found, and experience goods, goods whose values are known after they are experienced. Some have argued that information is an experience good rather than a credence good: "[I]nformation is an experience good every time it's consumed. How do you know whether today's *Wall Street Journal* is worth 75 cents until you've read it? Answer: you don't." Shapiro & Varian, *supra* note 12, at 5 (emphasis in original). But in fact you do not know whether the *Wall Street Journal* is worth 75 cents even after you have read it. The *Journal*'s evaluations, and even its facts, may be inaccurate. For a newspaper, this is not an extremely serious problem, because one reads a newspaper primarily for the facts it reports, which are usually accurate. But for other sources of information, which do not offer facts but instead offer, say, search results or product evaluations, the value of the information is uncertain even after it is consumed.

²⁴ Most individuals do not purchase eyeglasses frequently, so there is no reason for them to have more than a vague idea of prices.

²⁵ "The most misleading part of Internet shopping, the consumer advocates said, is that sites contending that they provide the lowest-cost insurance actually offer only choices among companies that pay them commissions." Joseph B. Treaster, *Group Says Web Sites On Insurance Have Pitfalls*, N.Y. Times, Aug. 1, 2001, at C4. The survey, performed by the Consumer Federation of America, did find some sites that offered more comprehensive listings. It is unlikely, though, that consumers could have judged from visiting a site in which category it fell.

²⁶ Alan Schwartz & Louis L. Wilde, *Intervening in Markets on the Basis of Imperfect Information: A Legal and Economic Analysis*, 127 U. PENN. L. REV. 630 (1979).

²⁷ See *infra* text accompanying note 60. See also *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 474 & n.21 (1992) (observing that competitors may not have the incentive to inform consumers).

In some instances, there are information intermediaries *for* information intermediaries, such as Search Engine Watch.²⁸ One might think that these intermediaries could solve this problem by directing users to those search engines that best provide useful, objective information.²⁹ In fact, though, these intermediaries may not cater so much to users as to the information intermediaries about which they provide information. Search Engine Watch, for example, provides information on how web site operators can get more favorable placements in search engine results.³⁰ This sort of information does not necessarily serve users. However, Search Engine Watch also provides information about paid placements and paid inclusions in search results, though this information is not prominently placed on the site.³¹

Users' difficulties in evaluating the products of information intermediaries are exacerbated by the way in which the intermediaries protect their products. When a seller's product is information, and particularly when it is information provided by a computer, it can be passed on by the buyer to others at little or no cost. As a result, the market for information intermediaries may fail to satisfy another, often unstated, condition for a competitive market: that sellers must internalize all costs and benefits of their products.³² If information, once sold, can be passed on freely, the intermediary cannot profit from all uses of the information it produces, and it may produce less information than society would be willing to purchase.³³

The law typically solves this problem with intellectual property laws, but to the extent that such laws protect the products of information intermediaries, they do not facilitate users' evaluations of those products, at least as these protections have so far been interpreted. This is true whether the product of the intermediary is a more or less fixed body of information — as is the case for web portals like Yahoo — or is derived in response to individual user requests — as is the case for search engines.

In the former case, some of the information provided by information intermediaries may be copyrightable,³⁴ or be protectable by proposed new forms of intellectual property protection.³⁵ Other

²⁸ Search Engine Watch: Tips About Internet Search Engines & Search Engine Submission, <<http://www.searchenginewatch.com>>. Another example is the Electronic Privacy Information Center, which has studied filtering programs. See EPIC Report -- "Faulty Filters," <<http://www2.epic.org/reports/filter-report.html>>.

²⁹ This sort of information is similar to reputation information, which is discussed in Part IV *infra*.

³⁰ See Search Engine Submission Tips, <<http://www.searchenginewatch.com/webmasters/index.html>>.

³¹ Indeed, the best discussion of these practices appears in the portion of the site aimed at webmasters, not in that aimed at searchers. See Buying Your Way In To Search Engines: Paid Placement, Paid Inclusion and Paid Submissions, <<http://www.searchenginewatch.com/webmasters/paid.html>>.

³² See Timothy J. Brennan, *Economic Efficiency and Broadcast Content Regulation*, 35 FED. COMM. L.J. 117 (1983); Arthur, *supra* note 11.

³³ DENNIS W. CARLTON & JEFFERY M. PERLOFF, *MODERN INDUSTRIAL ORGANIZATION* 563 (2d ed. 1994) ("Objective information supplied by outside organizations is rare because information is a *public good* (a good that, if it is supplied to anyone, can be supplied to others at no extra cost).") (emphasis in original).

³⁴ The information will be copyrightable to the extent that it exhibits the requisite originality. See *generally* Feist Publications, Inc. v. Rural Telephone Service Co., Inc., 499 U.S. 340 (1991). Courts have allowed copyright protection for information similar to that provided by some Internet intermediaries. See, e.g., *CDN, inc. v. Kapes*, 197

information may be protectable to some extent by contract, and the proposed Uniform Computer Information Transactions Act is intended to facilitate contractual protections.³⁶ Or the information may be protected by one or another of various tort theories, such as misappropriation or trespass.³⁷ And all of these forms of protection may soon be obviated by more effective technological means.

These protections may indeed allow providers of information to reap the benefits of their product, but they have also been used to prevent users from comparing various information products. For example, eBay succeeded in preventing Bidder's Edge from automatically searching eBay's auction listings for inclusion in the consolidated listings that Bidder's Edge offered.³⁸ Of course, Bidder's Edge sought to some extent to free ride on eBay's product. But since a buyer in an eBay auction was still required to go through eBay, even if it first found the auction on Bidder's Edge, it seems likely that eBay's concern was exactly the ability to comparison shop for auctions. That is, Bidder's Edge could be viewed not just as a consolidator of auction listings, but as a provider of information that could be used to evaluate auction sites.

Viewing Bidder's Edge in this way, as a provider of information not provided by eBay, raises constitutional concerns. The intellectual property protections³⁹ discussed above may be overridden by the constitutional requirements of the First Amendment. This point has been made for new intellectual property protections generally,⁴⁰ but it may be even stronger for the products of information intermediaries. That is, not only could eBay's control over its auction listings be questioned because those listings in themselves are factual, it could also be questioned as a restriction on the presentation of information *about* eBay.

Other sorts of information intermediaries, like search engines, do not provide bodies of information accessible to many users, but instead produce responses to particular user requests for information. When the information at issue is the product of an individual request, it is unlikely that the provider would seek to protect the information itself, because few would want to copy it. Instead, the provider is likely to seek to protect its means of producing the information. Thus, search engines seek to protect their search techniques, and providers of filtering software seek to protect their filtering criteria.

F.3d 1256 (9th Cir. 1999) (upholding copyright protection for estimates of collectible coin prices).

³⁵ In the last several Congresses, legislators have introduced several bills that would protect databases. *See, e.g.*, Collections of Information Antipiracy Act, H.R. 354, 106th Cong., 1st Sess. (1999).

³⁶ Uniform Computer Information Transactions Act (National Conference of Commissioners on Uniform State Laws, annual meeting draft, July 23-30, 1999), <> . adopted in Virginia

³⁷ *See* eBay, Inc. v. Bidder's Edge, Inc., 100 F. Supp. 2d 1058 (N.D. Cal. 2000).

³⁸ *Id.*

³⁹ Even technological forms of protection ultimately rely on legal protection. *See* Digital Millennium Copyright Act, Pub. L. 105-304 (1998)

⁴⁰ *See, e.g.*, Yochai Benkler, *Free as the Air to Common Use: First Amendment Constraints on Enclosure of the Public Domain*, 74 N.Y.U. L. REV. 354 (1999).

In some instances, these techniques may be patentable,⁴¹ but the method chosen by most intermediaries is to maintain their techniques as trade secrets.⁴² Maintaining an information intermediary's information-production techniques as a secret makes it impossible for users to determine if in fact those techniques meet their needs. When a search engine provides a list of web sites, or filtering software blocks a site, a user has no way of knowing from observing the result whether that result is the one best suited to its needs. It is possible that the search engine might have sold placement in its search results,⁴³ or that the filtering software might have used criteria that screen out sites that the user would prefer to see.⁴⁴

This problem has received the greatest public attention for filtering software. In fact, as part of the Digital Millennium Copyright Act (DMCA), Congress mandated that the Librarian of Congress, in consultation with the Register of Copyrights, study whether the DMCA's rules against the circumvention of copyright protections should be inapplicable to certain classes of information,⁴⁵ and the result was the exemption of two classes of works, one of which was lists of web sites blocked by filtering software.⁴⁶ The Librarian of Congress made these statements:

This does appear to present a problem for users who want to make noninfringing uses of such compilations, because reproduction or display of the lists for the purpose of criticizing them could constitute fair use. The interest in accessing the lists in order to critique them is demonstrated by court cases, websites devoted to the issue, and a fair number of commentators.⁴⁷

⁴¹ Business methods are in principle patentable, and many such method patents have been granted in recent years. *See, e.g.*, *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368 (Fed. Cir. 1998). The patentability of business methods continues to be controversial, however. *See, e.g.*, Robert P. Merges, *As Many as Six Impossible Patents Before Breakfast: Property Rights for Business Concepts and Patent System Reform*, 14 BERKELEY TECH. L.J. 577 (1999).

⁴² *See* Lucas D. Introna & Helen Nissenbaum, *The Internet as a Democratic Medium: Why the Politics of Search Engines Matters*, 16 THE INFORMATION SOCIETY 1 (2000) ("Web owners interested in having their pages indexed might wish they had access to the detail of routes that robots follow when they crawl, which sites they favor, which they visit and how often, which not, and so forth. This, however, is a complicated technical subject, which mostly is treated and steadfastly guarded as trade secrets by the respective search engine companies."). Even if patent protection were used, it would likely protect only the intermediary's basic method of generating information. The specific criteria applied by the patented method would likely remain secret.

⁴³ Saul Hansell, *Clicks for Sale: Paid Placement Is Catching On in Web Searches*, N.Y. Times, June 4, 2001, at C1; *Buying Your Way In To Search Engines: Paid Placement, Paid Inclusion and Paid Submissions*, <<http://www.searchenginewatch.com/webmasters/paid.html>>.

⁴⁴ *See* EPIC Report -- "Faulty Filters," <<http://www2.epic.org/reports/filter-report.html>>.

⁴⁵ 17 U.S.C. § 1201(a)(1)(C).

⁴⁶ Library of Congress, Copyright Office, *Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies*, 65 Fed. Reg. 64,555 (Oct. 27, 2000).

⁴⁷ *Id.* at 64,564 (citations omitted).

Although this rule applies only to filtering software, and only to efforts to circumvent technological copyright protections, its rationale could be applied more broadly. For example, suppose that a monitor of search engines sought to determine how the results of a particular search engine that did not disclose paid placements were influenced by those placements. Suppose that the monitor conducted a large number of searches, and the search engine sought to deny its ability to do so by claiming that it was violating its property rights, either intellectual (misappropriation of trade secrets) or personal (trespass⁴⁸). Under the rationale offered by the Librarian of Congress, the monitor's actions might be deemed a fair use of the search engine's property, and thus permissible.

III. INFORMATION INTERMEDIARIES' INCENTIVES TO SKEW INFORMATION

A final, and also often unstated, condition for a competitive market is that consumers' preferences are constant.⁴⁹ Because information often alters consumer preferences — indeed, is often intended to do so — the markets for information intermediaries may not satisfy this condition. The possibility of changing consumer preferences provides an alternative approach for intermediaries to profit from their product. As one source states, “[o]bjective information supplied by outside organizations is rare because information is a public good.”⁵⁰ An intermediary, even independent of effective intellectual property protection, can profit from its product, because it can profit from slanting the information it provides.⁵¹

Suppose that, like telephone listings, some information provided by an intermediary is unprotectable by intellectual property rights.⁵² The producer of such information is likely to be concerned that once it produces listings, they will simply be copied and distributed by others, and it will be denied any return on its investment. But the producer has another possible source of revenue: the listees. To the extent that it can charge a fee to be listed, as is done with Yellow Pages listings, the lister may not care that others take its listings and republish them. (In fact, because such republication distributes its listings more broadly without cost to the original producer, it may enable that producer to charge higher listing fees.)

Perhaps this would not present a problem for users, so long as all listings did in fact appear. But suppose the information intermediary would also accept a fee from a seller *not* to list the seller's competitors. Of course, this approach may not be feasible for telephone listings (at least not for white-page listings), because users of those listings often know what they are seeking, and therefore know

⁴⁸ See *eBay, Inc. v. Bidder's Edge, Inc.*, 100 F. Supp. 2d 1058 (N.D. Cal. 2000).

⁴⁹ Brennan, *supra* note 32; Dixit & Norman, *Advertising and Welfare*, 9 BELL J. ECON. 1 (1978).

⁵⁰ DENNIS W. CARLTON & JEFFERY M. PERLOFF, *MODERN INDUSTRIAL ORGANIZATION* 563 (2d ed. 1994) (emphasis added).

⁵¹ Although the focus in this essay is on a skewing of information for purposes of profit, one might also be concerned about other, more subtle distortions. See, e.g., Intron & Nissenbaum, *supra* note 42.

⁵² *Feist Publications, Inc. v. Rural Telephone Service Co., Inc.*, 499 U.S. 340 (1991).

when it is missing. But exactly this sort of approach is possible for Internet search engines,⁵³ where users do not know what information is available, and therefore do not know when certain information is missing, or appears only in a less prominent place than its importance⁵⁴ would warrant.

The possibility of providing biased information in this way offers another source of revenues for information intermediaries, and thus removes, or at lessens, their dependence on serving their users. A profit-maximizing intermediary will presumably seek to maximize the total of its revenue,⁵⁵ which will include revenue from users, from advertisers, and from the sellers that benefit from any biasing of the information. For several reasons, it is not difficult to imagine that the revenue available from sellers could be sufficient to cause a significant skewing of information.

First, direct user revenue is zero for many Internet intermediaries. The intermediaries still must provide some useful information to users, because only by doing so will they maintain sufficient user traffic to attract advertisers and to generate payments from sellers. But because they serve users only indirectly, and because they serve advertisers directly, it is possible that it will be most profitable to serve advertisers very well and users only less well.

A simple numerical example will illustrate the problem.⁵⁶ Suppose that an ultimate product market has two sellers, G (good) and B (bad), and that a related information-intermediary market has two search engines, O (objective) and S (skewed). Suppose that the products of G and B are priced identically, at G's cost, but that B provides a product that is of lower quality, which costs \$2 less to produce. As a result, all consumers prefer the product of G to that of B; assume that a consumer receives a surplus of \$4 from every purchase of G and one of \$2 from every purchase of B. With full information, then, consumers would all purchase from G, and B would make no sales.

But suppose further that consumers initially have no information about G or B, so that they go to a search engine. Suppose that B pays search engine S a fee of \$1 for every consumer that through S buys one of B's products. As a result, S provides information only about B, or features B more prominently than G. Consumers who use S are more likely to receive B's product, which is useful to

⁵³ See *supra* note 43. Another instance of such content discrimination, one that received much publicity, was Amazon's policy of accepting publishers' payments in exchange for prominently displaying recommendations of the publishers' books. See Kora McNaughton, Amazon Backs Off Promo Plan, <<http://news.cnet.com/news/0-1007-200-338512.html>>. Amazon claimed that it did not recommend books in exchange for payments. Instead, it said that "[o]nly books selected by Amazon.com editors qualify for publisher-supported placement." *Id.* Amazon subsequently said that it was discontinuing its policy, at least to the extent of disclosing any paid placements. *Id.*

⁵⁴ The criteria for determining the "importance" and the "objectivity" of particular information are not, of course, uncontroversial. There are, however, some uncontroversial instances. For example, if all consumers entering a particular search would find site A the most relevant, but a search engine returned before site A ten paid placements, the search engine's results could be said to fail to provide objective information. Even in the absence of unanimity, it may be clear that some information provided to consumers serves them less well than it serves sellers that paid to influence that information.

⁵⁵ Costs are presumably similar whether or not the intermediary skews the information it provides.

⁵⁶ This example does not attempt to present the problem in a rigorous way, but only to illustrate the nature of the problem.

them (with a \$2 surplus), but not as useful as the alternative — G’s product — of which they are unaware.

Can G or O counter this strategy? G, of course, can also offer to pay S, but any payment will cause G to operate at a loss, because it is selling its product at cost. The obvious strategy would seem to be for G to explain to consumers why its product is better, and to charge them a higher price. Fully informed buyers would be willing to pay up to \$2 more for G’s product than for B’s. Advertising its quality might work for G as long as buyers are able to find its product (and as long as the advertising costs less than \$2 per product sold). But buyers who seek the product through search engine S will still be led to the product of B. Only if G’s advertising allows it to raise its price above B’s more than the cost difference between them will G be able to outpay B for placement on S.

In theory, the other search engine, O, could solve this problem. It could do so by providing consumers with useful objective information. By acquiring a reputation for providing such objectivity, O could draw users from S. The question, however, is whether it can profit from doing so. Although consumers — again, in theory — should be willing to pay O up to \$2 for the information that G’s product will provide them with \$2 more surplus than will B’s product, it may be difficult for O to collect such payments, for at least two reasons. First, consumers may be unsure of O’s objectivity, or of its applicability to their particular needs.⁵⁷ Second, consumers are simply not accustomed to paying for product information in this way.⁵⁸

That means that O would be required to seek its profits from sellers or from advertisers. It presumably could not profit from sellers, because that would compromise its objectivity, perhaps in reality and certainly in appearance. Advertisers could be a source of revenue, but they too present a problem. O would probably be able to charge the most for advertisements related to the results of the search the user performed, but such advertisements (or even the refusal of them) might again compromise O’s objectivity, or its appearance. More general advertisements would be an alternative, but it is not clear that they would produce sufficient revenue to make the production of objective information profitable.

Perhaps the best evidence that there might be no search engine that competes on the basis of objectivity is the fact that none does. That is, there is no search engine that relies on its objectivity in the way that *Consumer Reports* magazine does, by refusing payments of any kind from those listed. Indeed, all the major search engines appear to accept not just advertising but payments for placement or inclusion.⁵⁹ Most do not even make clear on their sites the acceptance of such payments, or their

⁵⁷ That is, a consumer might be convinced that O was objective in general, but not be convinced that the information O provided, even if objective, met his or her needs.

⁵⁸ Some consumers do pay for *Consumer Reports* magazine, and thereby build up a library of product information, but it is not clear that an information intermediary could charge for information regarding one particular product.

⁵⁹ See *supra* note 43 & accompanying text.

effects.⁶⁰ Of course, that a search engine accepts advertising, or even payments for placement, does not make it impossible for it to provide objective search results, but it does raise concerns about objectivity. Moreover, the theoretical literature does not, so far as I have been able to find, address whether objectivity could be a profitable strategy for a search engine. Some of this literature assumes that consumer demand varies with search engine quality,⁶¹ but it is unclear whether consumers are in fact aware of search engine quality.

Similar opportunities exist for other intermediaries. Shopbots,⁶² for example, could accept payments to put certain sellers first in response to certain user inquiries.⁶³ Even if a particular user inquiry was an uncommon one, as, for example, if the user sought the lowest price on a relatively obscure book, the shopbot could have an arrangement that would apply. It might, for example, agree to put a particular bookstore first for requests that are subject to no other agreement. Only for a request that had no commercial implications (and maybe not even then) would it be difficult to imagine a profitable agreement into which an intermediary might enter. Regardless, intermediaries need not have incentives in every transaction to skew the information they provide to make such incentives as they do have a matter of concern.

IV. REPUTATIONAL CONSTRAINTS AND META-INTERMEDIARIES

The sections above alluded at several points to reputational constraints on information intermediaries; this section focuses specifically on the effectiveness of such constraints. There are two basic avenues for consumer discovery of reputation information. First, a consumer can directly evaluate the information it receives from an intermediary. Second, the reputation-discovery process can itself be intermediated, through a meta-intermediary that provides information about other information intermediaries.

As suggested above, the opportunities for consumers to directly evaluate the quality of information received by intermediaries may be limited. In theory, at least repeat customers of a particular intermediary should be able to evaluate the information that they receive, and that ability

⁶⁰ See FTC deceptive advertising complaint against search engines, <<http://www.commercialalert.org/searchengines/searchengines.html>> (hereinafter Commercial Alert complaint). GoTo.com includes with its paid placements the amounts of the payments, see Hansell, *supra* note 43, but users cannot tell from that information what the results would have been in the absence of any payments. from that . Google also provides some disclosure by labeling its paid placements as “Sponsored Links” and separating them from its search results. Commercial Alert complaint, *supra*.

⁶¹ See Tridas Mukhopadhyay et al., *Competition Between Internet Search Engines* (working paper October 15, 2000).

⁶² For a description of shopbots, see note 15 *supra*.

⁶³ It might be thought that a shopbot searching for, say, a product at the lowest price would be less likely to skew results than would a search engine. But consumer expectations are probably similar for each: consumers expect shopbots to provide objective price information, and they expect search engines to provide objective search information. Moreover, shopbots do not always claim to provide the lowest price.

should prevent intermediaries from skewing the information they provide. Empirical research has confirmed that reputation can serve this role under certain conditions.⁶⁴

One of those conditions, however, is that the true value of the information received be revealed to the consumer. In some circumstances, as where the information concerns the future value of an asset to be acquired, this condition will be satisfied.⁶⁵ For many intermediaries, though, consumers of information may never determine whether the information received was accurate.⁶⁶ This can be true, for example, for much information delivered by search engines: if the information is useless, the consumer will recognize that fact, but if the information is merely less useful than other information that might have been provided, the consumer is unlikely to recognize it. As a result, the consumer may find it difficult to form an opinion about the quality of the intermediary's information product.

However, that consumers may not be able to evaluate the quality of the information provided by a search engine or other intermediary does not mean that the quality cannot be evaluated. If there is a market for information about that quality, there may be an incentive for another to make evaluations that would not be efficient for an individual consumer. That is, there may be a place for a meta-intermediary to provide information about information intermediaries.

There is no compelling evidence, though, that there is a market for the products of such meta-intermediaries. Even where the product is a fungible one like books and the information concerns an unambiguous characteristic like price, consumers do not always avail themselves of available information:

Although comparison-shopping engines are common, their market penetration is limited, around 2 percent. Reasons for the limited penetration include the fact that comparison-shopping engines tend to be slow and the fact that they are cumbersome to use for a basket of goods. As a result, the vast majority of consumers are relatively uninformed about prices.⁶⁷

It seems likely that consumers are even less likely to seek out information about, for example, the objectivity of search engines, where the product—search results—differs from customer to customer and the quality of the information itself—the degree of objectivity—would be subject to interpretation.

That is not to say that consumers would *never* seek out such information. A recent article reports that reputation information is apparently used by buyers on eBay, so that sellers with better reputations receive higher prices.⁶⁸ eBay, however, is a very special case. Its own survival turns on the

⁶⁴ See Gary Charney & Nuno Garoupa, *Reputation and Honesty in a Market for Information*, <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=139695> (working paper Sept. 1998).

⁶⁵ *Id.*

⁶⁶ See *supra* note 23.

⁶⁷ Karen Clay et al., *Prices and Price Dispersion on the Web: Evidence from the Online Book Industry*, <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=268880> (working paper Mar. 31, 2001).

⁶⁸ Cynthia G. McDonald & V. Carlos Slawson, Jr., *Reputation in an Internet Auction Market*, <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=207448> (working paper Jan. 25, 2000).

performance of the sellers that use its auction services, so it has a strong incentive to ensure that those sellers perform well. Other meta-intermediaries, like comparison-shopping engines and Search Engine Watch, do not depend in the same way on the performance of the subjects on which they report. Indeed, the better their subjects perform, the less need there is for information about them, and thus the less need there is for the meta-intermediaries.⁶⁹

A fundamental problem is that information about the quality of an information intermediary is a public good, even where the product of that intermediary does not have the characteristics of a public good.⁷⁰ The product of a search engine, for example, may not have the characteristics of a public good, because the particularity of a user's search may mean that there is little likelihood that the user will pass on the results of that search (because the user is unlikely to be aware of other users needing the same search). As a result, the results of searches are likely to be information from which those not seeking them directly from the search engine are excluded, and the search engine is likely to be able to charge (even if only implicitly, through advertising) for each search by a user. Information about the objectivity of a search engine is more general information, however, of value to users generally, and thus is likely to be passed on.

That makes it unlikely that providing intermediary-quality information would be a profitable enterprise. Public or not-for-profit organizations might still provide such quality information, of course. But the availability of quality information would raise another issue: if that information forced intermediaries to provide objective information, they might not continue operations, at least in their present form. Search engines and other information intermediaries might be forced to charge users directly for their services, and thus to provide information that serves users first. But it is unclear whether the basic task of providing objective information, with no skewing of the information, and perhaps with no advertising, would be profitable.⁷¹

⁶⁹ A recent article points out, in the context of price comparisons, that noncompetitive performance of intermediaries both provides them with excess profits to pay meta-intermediaries and creates the consumer demand for those meta-intermediaries:

The intuition is that, while the gatekeeper's [*i.e.*, the meta-intermediary's] profits are maximized with full consumer participation in the market for information, the same is not true of full firm [*i.e.*, intermediary] participation. Full firm participation would lead to Bertrand competition in the product market and thus eliminate the rents the gatekeeper could otherwise extract from firms. Moreover, marginal cost pricing eliminates price dispersion in the product market, thus destroying the informational value of the gatekeeper's site.

Baye & Morgan, *supra* note 13, at 456. *Cf.* Grossman & Stiglitz, *supra* note 22.

⁷⁰ For example, the product of a search engine may not have the characteristics of a public good, because the particularity of a user's search may mean that there is little value in passing on the results of that search, so that the search engine is able to charge (even if only implicitly, through advertising) for each search by a user.

⁷¹ A recent study of insurance-rate sites found that although some appeared to base their coverage on payments from insurers, others were more objective. *See* Treaster, *supra* note 25. The question, though, is whether providing objective information will be a profitable strategy.

In a recent article, Michael Baye and John Morgan discuss this issue.⁷² They point out that if the prices charged consumers are too high, some consumers are likely to free ride, to the extent that participation by other consumers forces intermediaries to provide high-quality information.⁷³ If a significant number of consumers free ride, though, the intermediaries may find it profitable to ignore the participating consumers, provide low-quality information, and exploit the non-participating consumers. Although this would tend to bring those non-participating consumers into the fold, Baye and Morgan conclude that “the free-rider problem may be so severe that the gatekeeper [*i.e.*, the intermediary] finds it optimal to charge consumers less for information than it charges firms [to deliver it].”⁷⁴ As a result, if intermediaries are prevented from charging for placement and advertising, their operations may be unprofitable.

V. IS THERE A REMEDY?

To the extent that the market currently does not provide competition sufficient to induce information intermediaries to serve their users, the legal doctrines directed at maintaining competition might provide appropriate remedies.⁷⁵ Those doctrines are contained largely in the various bodies of law addressing unfair competition, and particularly in the laws against false advertising and in antitrust law. It is the latter that is likely to be more useful, though the former might be applicable in some instances.

Interestingly, the three kinds of information costs described briefly at the beginning of this essay appear to present different sorts of competition problems. For filtering costs, or at least for filtering software, there is little incentive for providers to distort results as compared to those desired by consumers. One can perhaps imagine operators of pornography sites offering to pay filter providers to allow their sites through, but if such enticements were accepted, the results would presumably be detected quickly. In that respect, consumers are likely to be able to evaluate filtering errors more easily than they can evaluate other distortions discussed here. Consumers are less able to detect Type II errors, where sites that consumers would prefer to be passed are instead screened out, but it seems

⁷² Baye & Morgan, *supra* note 13.

⁷³ Mark Nadel suggests that the payments required will be small, “anywhere from fifty cents to a few dollars per transaction.” Nadel, *supra* note 2, at 202. Even if that is so, though, consumers still might find the time required to arrange payment, together with privacy concerns, sufficient to make free-riding a preferred option.

⁷⁴ *Id.* at 466.

⁷⁵ Contractual claims might also be possible, at least where users of a web site make a purchase there. For example, if a consumer used a travel site to search for lowest-fare airplane tickets, and purchased a ticket in reliance on its presentation as the lowest fare, a contractual claim might be possible. Such sites generally present disclaimers (albeit quite general ones), however. See [Travelocity] User Agreement, <http://www3.travelocity.com/info/info_main/0,,TRAVELOCITY:EN|TERMS,00.html#> (“Travelocity.com and any third party providers and distributors do not warrant the accuracy, completeness, currency or reliability of any of the content or data found on this site”) (all uppercase in original).

unlikely that there would be any incentive for filter providers to make such errors.⁷⁶ Thus, the competitive problems of filtering software seem confined to the accuracy of their representations regarding their performance, issues best addressed through the law of false advertising.⁷⁷

The problems presented by search engines and privacy-certifying organizations are different, in that they involve the relationships between markets that characterize antitrust issues.⁷⁸ In each case, the information intermediary may have an incentive to skew the information it provides. In the case of privacy-certifying organizations, the incentive may be created by the lack of independence of these organizations, which are governed, at least in part, by the very entities whose performance they certify.⁷⁹ In the case of search engines, the incentive is created by contract when search engines agree to alter the results they provide in exchange for payments by sellers.⁸⁰ In the former case, the antitrust problem is one typically characterized as a horizontal restraint; in the latter, the restraint is vertical.

A. *False Advertising*

The law of unfair competition is directed primarily at false statements, whether about products themselves, as in false advertising law, or about products' origins, as in trademark law. However, although information intermediaries sometimes fail to deliver what their users expect, they do not necessarily make false statements about their services; indeed, they sometimes make no representations of any kind. Search engines, for example, often make no claims at all about the nature of the results that they provide.⁸¹ There are possible exceptions, however, among the certification intermediaries, such as

⁷⁶ That is, it is unlikely that any particular site would offer to pay a filter provider to exclude other sites. In theory, there might be an advantage to a seller in encouraging a filter provider to exclude its competitors' sites, but in practice, the seller would likely have more efficient means of gaining that advantage (as by dealing with search engines).

⁷⁷ See *infra* part V.A.

⁷⁸ I have argued elsewhere that this is the characteristic that determines whether problems of deception are best addressed by antitrust law or the law of false advertising. See Mark R. Patterson, *Coercion, Deception, and Other Demand-Increasing Practices in Antitrust Law*, 66 ANTITRUST L.J. 1 (1997). This analysis differs somewhat from Neil Averitt and Robert Lande's theory of antitrust and consumer-protection law. Neil W. Averitt & Robert H. Lande, *Consumer Sovereignty: A Unified Theory of Antitrust and Consumer Protection Law*, 65 ANTITRUST L.J. 713 (1997). Averitt and Lande characterize as consumer-protection problems those market failures that are "internal" to consumers, in the sense that they "take place . . . 'inside the consumer's head,'" *id.* at 714, and "impair the individual's ability to choose," *id.* at 734. I would say instead that consumer-protection problems are those that are internal to one market, and that antitrust problems are those that involve some linkage of markets. *Cf. id.* at 735-40 (observing that some standard-setting activities and tying arrangements can raise both antitrust and consumer-protection concerns).

⁷⁹ See *infra* part V.B.1.

⁸⁰ See *infra* part V.B.2.

⁸¹ Nevertheless, the organization Commercial Alert recently filed a complaint with the FTC regarding search engine practices. See Commercial Alert complaint, *supra* note 60. The complaint requests that the FTC investigate search engine practices, stating that "[b]y concealing the key fact that their ads [*i.e.*, paid placements and paid inclusions] are ads, search engines appear to be violating the federal prohibition against deceptive acts or

TRUSTe, and the screening intermediaries, such as the providers of filtering software. Each of these kinds of intermediaries makes more or less explicit claims regarding their function, and it is not always clear that those claims are justified.

In two recent instances, the privacy-certifying organization TRUSTe failed to revoke the certifications of entities that were widely thought to have violated their users' expectations regarding privacy. In the first instance, RealNetworks gathered user information through its RealJukebox program, without notification to the users.⁸² In the second instance, Microsoft gathered user information through its Hotmail e-mail service.⁸³ TRUSTe declined to revoke the certification of RealNetworks and Hotmail because in neither case, it said, did the breach of privacy take place on the certified entity's web site.⁸⁴

But what did TRUSTe claim to be certifying? On TRUSTe's Web page, it makes this claim: "When you see the TRUSTe seal, you can be assured that you have full control over the uses of your personal information to protect your privacy."⁸⁵ Only if the user clicks further into the TRUSTe site does the user find a more limited description of TRUSTe's role: "As an Internet user, you have a right to expect online privacy and the responsibility to exercise choice over how your personal information is collected, used, and shared by *Web sites*."⁸⁶ It seems that TRUSTe could be seen to be guilty of a misrepresentation of its service.

Providers of filtering software also sometimes make representations regarding the nature of the sites they filter.⁸⁷ As noted above, though, the actual lists of sites are generally held as trade secrets,⁸⁸

practices." However, the complaint's claim that an "implied representation to search engine users that listings are not skewed by marketing or commercialism" arose from the former absence of paid placements and paid inclusions seems questionable.

⁸² Courtney Macavinta, Truste reports on RealNetworks as FTC examines Net privacy, <<http://news.cnet.com/news/0-1005-200-1431844.html>>.

⁸³ Courtney Macavinta, Hotmail breach prompts Microsoft security audit, <<http://news.cnet.com/news/0-1005-200-114773.html>>.

⁸⁴ See Macavinta, , *supra* note 82 ("After an initial inquiry, Truste found that because the transmission of user data through RealNetworks' RealJukebox program did not involve collection of data on the RealNetworks Web site, the privacy incident was outside of the scope of Truste's current privacy seal program.").

⁸⁵ TRUSTe: Building a framework for global trust, <<http://www.truste.com>>.

⁸⁶ TRUSTe For Consumers, <http://www.truste.com/consumers/users_how.html> (visited July 9, 2001) (emphasis added).

⁸⁷ For example, Net Nanny lists the five "categories and criteria" that will result in its filtering of a site; these are sexual explicitness or material related in described ways to hate, violence, crime, or drugs. See Net Nanny 4: How We Filter <http://www.netnanny.com/home/net_nanny_4/how_we_filter.asp>. Cyber Patrol says that its CyberNOT list "consists of inappropriate content for children, such as pornography, bomb-making instructions, or violence." See Cyber Patrol 5.0, <http://www.surfcontrol.com/products/cyberpatrol_for_education/product_overview/homefact.pdf>.

⁸⁸ This is not true for Net Nanny. "Of course, you have the full capability to scan our web site lists and easily modify them to meet your own family standards." Net Nanny 4: How We Filter <http://www.netnanny.com/home/net_nanny_4/how_we_filter.asp>.

making the providers' representations unverifiable. Occasionally, reports appear regarding the unintentional filtering of sites that do not meet the software providers' criteria. As a result, there is probably now a general awareness of the limitations of filtering software. Still, it is possible that the representations made by filtering companies do not accurately describe the services they provide.

More to the point for present purposes, to the extent that these intermediaries fail to meet their users' needs, to what extent can competition remedy the problem? In the case of TRUSTe, it seems unlikely that another certifying organization will step in, for the reasons discussed in the next section. There are a number of providers of filtering software, however, so effective competition seems at least possible in that market. The reports of failings in filtering software generally come from free speech activists, though not from competitors. It may be that the services of all are subject to the same failings, so that competition does not lead to exposure of those failings.⁸⁹

B. *Antitrust*

The line between antitrust and unfair competition more generally is not always clear, but antitrust focuses more specifically on market power — either its exploitation or its use. False advertising can create market power, and false advertising can be an antitrust violation,⁹⁰ but antitrust also includes doctrines intended to address interrelationships among markets. For that reason, it is better suited to addressing, for example, the problem of a search engine providing skewed results aimed at sending users to a seller from which the search engine has received payments. That problem can be viewed as a use of power in the intermediary market to gain an advantage in the ultimate product market.

To say that antitrust is better suited to address these sorts of problems is not, however, to say that it currently is well suited to doing so. The problems of leveraging power in one market to obtain an advantage in another are controversial in antitrust. Moreover, antitrust has not dealt in a systematic way with the role of information as a source of power, and the few contexts in which it has addressed informational power are not particularly relevant to these issues. Nevertheless, one can derive approaches to these problems that are logical extensions of current antitrust doctrine.

1. Horizontal Agreements

Antitrust is perhaps most obviously applicable where the problem can be characterized as the product of an agreement. Given the extent to which industry has been permitted to self-regulate on the

⁸⁹ It is probably the case that many users of filtering software prefer the software to make Type II errors, screening out sites that should be passed, rather than Type I errors, passing sites that should be filtered. There are good reasons, then, why the filtering process initially might be overinclusive. Nevertheless, one would still expect competition to reduce the degree of overinclusiveness.

⁹⁰ *American Professional Testing Service, Inc. v. Harcourt Brace Jovanovich Legal and Professional Publications, Inc.*, 108 F.3d 1147 (9th Cir. 1997); *National Association of Pharmaceutical Manufacturers, Inc. v. Ayerst Laboratories*, 850 F.2d 904 (2d Cir. 1988); 3 PHILLIP E. AREEDA & DONALD F. TURNER, *ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION* ¶ 738a, at 279 (1978).

Internet, particularly in the privacy area, such characterizations are possible in a number of instances. For example, in the TRUSTe incidents discussed above, one might ask whether TRUSTe is a single entity or is instead the product of an agreement among the entities that it certifies. If the latter, then the decisions not to de-certify RealNetworks and Hotmail take on a new light.

In fact, the board of TRUSTe is composed almost entirely of persons employed by two groups: companies that are certified by TRUSTe and companies that provide business consulting services to those certified companies.⁹¹ Under these circumstances, one might reasonably question the independence of TRUSTe. One board member is even the Chief Privacy Officer of Microsoft, the parent company of Hotmail.

One can draw an analogy to antitrust cases involving standard-setting organizations.⁹² TRUSTe stands in a position similar to that of the American Society of Mechanical Engineers (ASME), which the Supreme Court held liable when one of its members “successfully used its position within ASME in an effort to thwart [a] competitive challenge.”⁹³ A somewhat analogous case could be made against TRUSTe, claiming that it also used its certification system to thwart competitors. Disadvantaged sellers that provide more robust privacy protections might find it more difficult to reap the competitive advantages of those protections if RealNetworks and Hotmail can point to their TRUSTe certifications.

But TRUSTe might not have the power that the ASME did. The power of the ASME arguably came from its members’ “implicit agreement” not to deal (as the Supreme Court said in a similar case⁹⁴) in unapproved products; thus, the ASME was dependent in this respect on its members, whereas users of the TRUSTe mark are not TRUSTe members and thus presumably do not agree to follow the decisions of TRUSTe.

On the other hand, the acceptance of TRUSTe’s mark — its power — comes from its acceptance by consumers, which in turn comes from its widespread adoption; thus, TRUSTe, to survive, must promote standards that will be adopted, and thus is dependent on those who seek its certification to a greater degree than even the ASME. Moreover, those companies that use the TRUSTe trustmark know that its value is dependent on others using it, so there is an interdependence similar to that in the standard-setting cases.

TRUSTe declined to decertify RealNetworks and Hotmail because, it said, their privacy problems were not of the kind that it certified. But it seems unlikely that it is sufficient that an organization in TRUSTe’s position meets its own, internally generated standards. In another Supreme

⁹¹ One board member that might be said to provide a more independent privacy perspective is an employee of an organization called the Privacy Council. But the primary role of that organization too appears to be the provision of consulting services, *see* <<http://www.privacycouncil.com/company.jsp>>; that is, it does not appear to be an advocacy group like, for example, the Electronic Privacy Information Center.

⁹² *See* David A. Gottardo, *Commercialism and the Downfall of Internet Self Governance: an Application Antitrust Law*, 16 J. MARSHALL J. COMP. & INFO. L. 125, 129-30 (1997) (arguing that Internet companies, “under the guise of an association promoting standardized Internet regulation, may promulgate and enforce Internet rules designed to harm on-line competition.”).

⁹³ *American Society of Mechanical Engineers, Inc. v. Hydrolevel Corp.*, 456 U.S. 556, 562 (1982)

⁹⁴ *Allied Tube & Conduit Corp. v. Indian Head, Inc.*, 486 U.S. 492, 500 (1988).

Court standard-setting case, the Court said that whether standards are procompetitive can depend on whether they are based on “objective expert judgments.”⁹⁵ Whereas the standards of the ASME were directed at experts (mechanical engineers), those of TRUSTe are directed at consumers. Consequently, it could be appropriate to consider the expectations of those consumers.⁹⁶

It may seem too great a burden to require TRUSTe to conform to consumer expectations, but it is important to remember that the market for the information that TRUSTe provides may not work well. For that reason, as with standard-setting organizations, and with other information intermediaries, privacy-certifying organizations may have significant market power. Perhaps TRUSTe, as the Supreme Court said of the ASME, “can be said to be ‘in reality an extra-governmental agency, which prescribes rules for the regulation and restraint of interstate commerce.’”⁹⁷ For its actions to be procompetitive, it must operate “through procedures that prevent the standard-setting process from being biased by members with economic interests in stifling product competition.”⁹⁸

⁹⁵ *Id.* at 501.

⁹⁶ *Cf. id.* at 566 (“ASME’s system of codes and interpretative advice would not be effective if the statements of its agents did not carry with them the assurance that persons in the affected industries could reasonably rely upon their apparent trustworthiness. Behind the principal’s liability under an apparent authority theory, then, is ‘business expediency—the desire that third persons should be given reasonable protection in dealing with agents.’”) (quoting Restatement (Second) of Agency § 262, Comment a, p. 572).

⁹⁷ *Mechanical Engineers*, 456 U.S. at 569 (quoting *Fashion Originators’ Guild of America, Inc. v. FTC*, 312 U.S. 457, 465 (1941)).

⁹⁸ *Allied Tube*, 486 U.S. at 501.

Similar issues can arise in contexts where economic interests are not at stake. Consider the Real-Time Black Hole List (RBL). See MAPS Realtime Blackhole List, <<http://maps.vix.com/rbl/>>. (MAPS is an acronym for Mail Abuse Prevention System LLC.) The operator of the RBL provides and updates a list of Internet Protocol (IP) addresses of “spammers” — senders of unsolicited commercial e-mail. The list is used by Internet service providers (ISPs) and others as a basis on which to screen out e-mail. That screening has the intended effect of eliminating spam, but it can also have the unintended effect of eliminating non-spam e-mail. See Center for Democracy and Technology, Report to the Federal Trade Commission of the Ad-Hoc Working Group on Unsolicited Commercial Email, <<http://www.cdt.org/spam/>> (“Unfortunately, this effort has had some negative repercussions for service providers who, for a variety of reasons, have found themselves on the blacklist [because they were thought to be hosting “spammers”]. The impact on such service providers and their non-UCE [unsolicited commercial email] sending subscribers can be serious.”).

The RBL, like TRUSTe, straddles the line between unilateral and agreed-upon restraints. The list itself is produced by a single entity, but additions to the list are sometimes made at the request of the list’s subscribers, see Reporting Abuse to the MAPS RBL Team, <<http://maps.vix.com/rbl/reporting.html>>, which no doubt make such requests with the expectation that others will block the offending IP address as well. And those who provide such information presumably do so with the understanding that they will get similar information from others, the sort of understanding that has been treated as an agreement in antitrust information exchange cases. Moreover, the parallel use of the list by its subscribers could perhaps be viewed as an agreement, at least if its widespread use is a condition on its continuation.

But whereas many of the board members of TRUSTe compete (at least in principle) on their privacy policies, the subscribers to the RBL do not generally compete in the e-mail advertising market, at least in the sense that they do not sell in that market. They are competitors in some sense, though, in that they oppose the use of their servers for such advertising. And the operator of the RBL is a competitor in the sense that he believes that advertising should not be communicated in that manner. So one could perhaps describe the participants as a collective effort to stamp out e-mail advertising.

The issues presented by TRUSTe are also present with the online provision of sellers' privacy policies. Although each individual seller posts its own policy, there has been considerable collective action in determining what information the policy should include. For example, the Online Privacy Alliance has promulgated Guidelines for Online Privacy Policies:

The policy must state clearly: what information is being collected; the use of that information; possible third party distribution of that information; the choices available to an individual regarding collection, use and distribution of the collected information; a statement of the organization's commitment to data security; and what steps the organization takes to ensure data quality and access.⁹⁹

To the extent that these guidelines make less likely the provision of certain information that might otherwise be conveyed, they could be viewed as a collective suppression of information. The guidelines do not expressly preclude sellers from providing such information, of course. But the failure of the guidelines to advocate the provision of a particular kind of information surely makes it less likely that the information will be provided. And, more to the point, the sellers' collective action provides them with a justification to which they can point if additional information is requested.

To make this point more concrete, consider the omission from the guidelines of any mention of the value of the information gathered. The central characteristic of most instances of the collection of private information is that they involve no payment for the information. One might argue that the reason no such payments are made is that consumers are not aware of the value of the information they are providing.¹⁰⁰ If only a single seller were involved, the issue might only be one of the existence of information costs — the costs that consumers would incur in seeking the information — which might lend the seller some degree of market power, but would not necessarily present any problem of anticompetitive conduct.¹⁰¹

The RBL providers might be viewed as analogous to, say, broadcast television networks that agreed that liquor should not be advertised on television. If the networks entered into such an agreement, it could constitute an antitrust violation, *see* *United States v. National Association of Broadcasters*, 553 F. Supp. 621 (D.D.C. 1982); *but see* *American Brands, Inc. v. National Association of Broadcasters*, 308 F. Supp. 1166 (D.D.C. 1969), as could the actions of the RBL and its subscribers. The key difference, though, is that television networks might prefer, on an individual basis, not to refuse liquor advertising, whereas the RBL subscribers presumably would prefer, even individually, to reject "spam." As a result, to the extent that the RBL subscribers have entered into an agreement, that agreement may not alter their incentives. On the other hand, an individual subscriber may not be so careful in evaluating the RBL's recommendations because it knows that other subscribers will also act on those recommendations, and this could increase the harm to those that are incorrectly excluded.

⁹⁹ Online Privacy Alliance, Guidelines for Online Privacy Policies, <<http://www.privacyalliance.org/resources/ppguidelines.shtml>>.

¹⁰⁰ It is also possible that the problem is the inability to efficiently deliver small payments, but micropayment technologies may eventually solve that problem. *See* Jari Kytöjoki & Vesa Kärpjoki, Micropayments — Requirements and Solutions, <<http://www.hut.fi/~vkarpjjo/netsec99>>.

¹⁰¹ *See generally* Patterson, *supra* note 78.

If, however, a group of sellers, or an entire industry, effectively agrees not to provide information on the value of information that they are collecting from consumers, a more difficult problem is presented. In that respect, the guidelines of the Online Privacy Alliance could be viewed as akin to the “work rule” of the dentist group in *FTC v. Indiana Federation of Dentists*.¹⁰² In that case, the Court viewed the universal compliance with a directive to withhold information as evidence of the federation’s power.

There is an important difference between privacy policy guidelines and the dentists’ work rule, though: dental insurers need to contract with many dentists, while a consumer need only deal with one seller. And the insurers in *Indiana Federation of Dentists* specifically requested the information denied, whereas it might be that consumers, or many consumers, are not particularly interested in the value of the information they are providing, or are not sufficiently interested to devote time to considering that information.

Could an individual seller compete by providing the information that other sellers withhold? Perhaps it could gain an advantage with those consumers that visit its site. But the other sellers with which it competes would still be able to point to their compliance with the guidelines of the Online Privacy Alliance to argue that they meet the industry standard, just as RealNetworks and Hotmail were able to continue to point to their TRUSTe certification. So as with TRUSTe the question becomes the independence of the organization. Like TRUSTe, the Online Privacy Alliance is governed by industry participants and related entities — in the case of the alliance, marketing associations.

Similar issues arise in other contexts. For example, the effort by CommerceNet to create a common format for online catalog listings is somewhat similar to the Online Privacy Alliance’s promotion of privacy guidelines. On its face, a particular choice of catalog format is not likely to exclude any particular kind of information, but only to define the way in which that information must be expressed. But since the key effect of the common format — indeed, its purpose — is to facilitate automated searching of the catalogs, any information not included in the format is less likely to be located by consumers.

The advantages of such an approach were discussed in a recent article, where it was suggested that even information as central as price could be suppressed :

For example, high-quality multimedia product descriptions in standard formats could help identify product offerings matching the buyer’s preferences, while price information could be left out of these descriptions or could be obscured by offering a large number of prices and making it difficult for the buyers to figure out which one applies.¹⁰³

To take another, and perhaps more plausible, example, suppose that some companies seek to market their products by pointing to their environmentally friendly manufacturing processes. If they can include those processes among the items searchable through the CommerceNet-approved formats, this

¹⁰² 476 U.S. 447 (1986).

¹⁰³ Yannis Bakos, *The Emerging Landscape for Retail E-Commerce*, 15 J. ECON. PERSP. 69, 75 (2001).

marketing approach may be successful. But if CommerceNet does not include a means of searching for such information, the approach may not succeed, and that form of competition will be lost.

2. Vertical Agreements

Vertical agreements, like those that provide for paid placements on search engines, also may not involve express suppression of information. They *would* involve express suppression if they provided, for example, that the fact of payment would not be disclosed in the search results.¹⁰⁴ A procompetitive justification for such a provision is not obvious, as it would seem to be designed to make more difficult decision-making by consumers. (Such an explicit provision would presumably be for the benefit of the seller paying for placement, because the search engine could institute such a policy unilaterally.)

Information can also be suppressed without express agreement, however. In fact, any payment for placement (or similar practice, such as paid inclusion¹⁰⁵), could be viewed as suppressing the information that would have been provided in the absence of the placements. The competitive effect, like that of an express suppression of information, would be the foreclosure of the avenue for distribution of information that the search engine would have provided. That is, the effect if of an exclusive dealing arrangement in the information of only one seller's product.

Antitrust has never to my knowledge considered a claim of information foreclosure in those terms, but it has considered analogous circumstances. In fact, the FTC has recently conducted a workshop on slotting allowances, the payment for placement on retailers' shelves.¹⁰⁶ Although this workshop did not reach any firm conclusions regarding the proper antitrust treatment of such practices, let alone the proper treatment of other practices, like payments for placement, it is evidence of an increasing concern regarding antitrust issues in markets for marketing.

An even more similar case, in that it involved foreclosure not just of shelf space, but of advertising, is *R.J. Reynolds Tobacco Co. v. Philip Morris Inc.*,¹⁰⁷ in which Philip Morris was enjoined not only from providing dealers with incentives to display cigarettes in a way that made it difficult for consumers to find its competitors' cigarettes, but also from contracting for the suppression of advertising of its competitors.

However, exclusive dealing arrangements in general, and slotting allowances in particular, are less problematic because they probably involve no consumer expectation of even-handedness, or

¹⁰⁴ Express suppression would probably also be at issue if the agreement made reference to a search-engine policy that such information would not be disclosed.

¹⁰⁵ Paid placement ensures that a seller's page will appear at a particular location in search results; paid inclusion merely ensures that the page will be indexed using the search engine's normal (*i.e.*, non-paid-for) placement criteria.

¹⁰⁶ Report on the Federal Trade Commission Workshop on Slotting Allowances and Other Marketing Practices in the Grocery Industry, <<http://www.ftc.gov/os/2001/02/slottingallowancesreportfinal.pdf>>.

¹⁰⁷ 60 F. Supp. 2d 502 (M.D. N.C. 1999).

disinterestedness.¹⁰⁸ To the extent that consumers expect Amazon's book recommendations to be disinterested, or expect search engines to present results on the basis of an objective ranking system,¹⁰⁹ payment for placement will be deceptive.

Moreover, information providers like Amazon and search engines are additional examples of the sort of market fragmentation discussed above. Even if Amazon (or AltaVista) has only a small share of the book or search market, it could have the power to steer its customers to particular books (or Web sites). The very fact that the customer is reading a book review or conducting a particular search reveals enough interest in the results to indicate that it might be possible to steer that customer into making a book purchase or visiting a site.

3. Unilateral Action

One could also question the appropriation of the value of consumer information where there is no agreement. For example, in the recent controversy regarding eBay's efforts to refuse to allow other companies to list eBay's auctions with those from other auction sites, one of those companies has said that it "believes eBay's arguments are not justified, especially since the information eBay is trying to protect is not its own, but rather is data generated by eBay sellers."¹¹⁰

Could eBay be acting as a unilateral but anticompetitive information bottleneck? One might view the collective whole of auction results as a public good,¹¹¹ and any portion, or large portion, of that whole as an essential facility to which all sellers should have access.¹¹² In this view, eBay should compete by providing better auction services, not by denying consumers' ability to easily compare auctions on eBay's site with those on other sites. In this respect, eBay's actions share some similarities with those of Toys "R" Us, Inc. (TRU), in a recent case litigated by the FTC.¹¹³ TRU entered into agreement with toy manufacturers to provide popular toys to competing (and cheaper) warehouse clubs

¹⁰⁸ Actually, this statement is probably true to different degrees for different practices. It is possible, for instance, that consumers have some expectations regarding the allocation of grocery shelf space, and perhaps believe that space is allocated on the basis of the grocer's understanding of consumer desires. I am aware of no empirical research on consumers expectations in these areas.

¹⁰⁹ On the search engine problem, see generally Intronis & Nissenbaum, *supra* note 42.

¹¹⁰ Greg Sandoval & Troy Wolverton, eBay Files Suit Against Auction Site Bidder's Edge, <<http://news.cnet.com/news/0-1007-200-1497267.html?tag=st.ne.1007-200-1542176-1007-200-1542176.>>.

¹¹¹ In this case, the information might be a public good not just in the usual sense, but also in the sense that it is generated by the public.

¹¹² The information does seem to meet the usually-stated criteria for an essential facility: "The case law sets forth four elements necessary to establish liability under the essential facilities doctrine: (1) control of the essential facility by a monopolist; (2) a competitor's inability practically or reasonably to duplicate the essential facility; (3) the denial of the use of the facility to a competitor; and (4) the feasibility of providing the facility." MCI Communications Corp. v. American Tel. & Tel. Co., 708 F.2d 1081, 1132-33 (7th Cir. 1983).

¹¹³ Toys "R" Us, Inc. v. FTC, 221 F.3d 928 (7th Cir. 2000).

only in different version, so as to make it more difficult to compare prices on the toys. Although eBay's actions are unilateral, the effect of those actions may be similarly anticompetitive.

CONCLUSION

Ultimately, of course, my title overstates the case. Information intermediaries are not truly impossible. But for many intermediaries, it may be more profitable, at least in the short term, to accept payments to skew the information they provide to consumers than it would be to provide objective information. And there may be little to restrain such conduct, because there may be little profit, again in the short term, in providing consumers with information about it, such information being a public good.

Whether longer term factors, such as consumer experience and reputational effects, will cause information intermediaries ultimately to provide objective information is less clear. It may simply be unprofitable to provide such objective information, at least as intermediaries are currently constituted. In that case, the legal remedies discussed here, to the extent that they denied intermediaries the opportunity to provide *non*-objective information, might also make intermediaries unprofitable in their current forms. In the end, information intermediaries might become public sector entities, like libraries, or the intermediaries might begin charging users directly for the information they provide.